

Application No. 10/767,992
Amendment dated August 31, 2005
Reply to Office Action of June 1, 2005

Docket No.: 20513-00601-US

REMARKS

In view of the above amendment, applicant believes the pending application is in condition for allowance.

The office action and prior art relied upon have been carefully considered. In an effort to expedite the prosecution of the present application, the claims have been reviewed and amendments have been made to grammatically correct the claims so as to clarify the patentable content thereof.

Applicant notes with appreciation the indicated allowability of claims 2-9. By virtue of the clarification amendment to the claims and the following remarks concerning the prior art, it is believed that it will be clear to the Examiner that all of the claims currently in the application, namely claims 1-9, are allowable.

The specification has been reviewed and minor informalities have been corrected including appropriate headings for the specification.

Claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Romanos (3,661,123) in view of Dague (6,173,680). In response to this rejection, applicant wishes to point out that the present invention is directed to a steam generator that includes, in the classic manner, an outer shell and enclosed bundle of exchange tubes. The generator also includes, as does the prior art, an apparatus for providing feedwater delivery that includes a toroidal collector 11 supplying a plurality of distribution tubes 15 that are positioned vertically.

The problem with the classical arrangement of these components, as pointed out in the cited prior art, relates to trapping foreign bodies contained in the feedwater and which circulate rapidly in the steam generator. The object of the present invention is to eventually trap foreign bodies contained in the feed water that circulate rapidly in the steam generator, the present invention blocking them in the toroidal collector that allows their eventual removal.

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A contribution of the present invention is to provide at least one opening in the vertical tube 15 at a location near the upper end of the tube 15. Sealing the upper end of the tube is a domed cap having a closed end that seals the opening of the tube and which laterally surrounds the open end section of the tube leaving a radial passage to which water can flow outwardly from the opening and against the inner wall of the cap. This is clearly shown in Fig. 4A of the present invention wherein it will be noted that the upper end of tub 15 is sealed by the cap 16.

The primary reference to Romanos shows a different arrangement occurring at the top end of vertical distribution tube 98 that is supplied with feed water by conduit 56. Reviewing Fig. 3 of Romanos, it becomes clear that tube 98 is opened at its upper end so that a foreign body could easily become lodged between the tube opening and the confronting closed end of cap 102. This is due to the fact that the cap does not seal the upper end of tube 98 as is required by the presently claimed invention.

In the present invention, the problem of blockage is prevented by sealing the end of distribution tube 15 by the cap 16 and allowing water to flow radially outward from the upper end of tube 15 through the slots 20 -- as opposed to through an open distribution tube end as in Romanos.

Accordingly, Romanos would not solve the problem of blockage by foreign bodies that can disturb the distribution of water. Therefore, in summary, Romanos fails to disclose the particular structure of the claimed invention as well as failing to recognize and solve the blockage problem attended to by the claimed invention.

The secondary reference to Dague is cited by the Examiner to illustrate that a toroidal feedwater distribution conduit is established in the prior art. This is readily acknowledged, however, the present invention resides in the particular arrangement at the top of the distribution tube 15 and its associated cap 16. Therefore, the combination of references relied upon by the Examiner fails to render the present claims unpatentable.

In view of the above, consideration and allowance are, therefore, respectfully solicited.

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In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to CBLH Deposit Account No. 22-0185, under Order No. 20513-00601-US from which the undersigned is authorized to draw.

Dated: August 31, 2005

Respectfully submitted,

By 

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